zero (adj./n.) A term used in some areas of LINGUISTICS to refer to an abstract unit postulated by an analysis, but which has no physical realization in the stream of speech. Its symbol is Ø. In English MORPHOLOGY, for example, the pressure of the grammatical system to analyse plurals as Noun + plural has led some linguists to analyse unchanged nouns, such as sheep and deer as Noun + plural also, the plurality in these cases being realized as zero (a zero morph). A 'zero operation' of this kind is also called an 'identity operation', one where the input and the output of the operation are identical. Similarly, in other grammatical CONTEXTS where a given MORPHEME usually occurs, the absence of that morpheme under certain conditions may be referred to as zero, e.g. zero infinitive, referring to the absence of to before the verb in English; zero article, referring to the absence of a definite or indefinite ARTICLE before a noun; zero connectors, as in he said he was coming, where that is omitted; zero valency, referring in VALENCY grammar to verbs which take no COMPLEMENTS; and zero relative clauses, as in the book I bought . . . In cases such as He's laughing, is he, some linguists analyse the second part of the sentence as a REDUCED form of the verb phrase is he laughing, referring to the omitted part by the term zero anaphora. Zero is also found in PHONOLOGICAL analysis, e.g. in a conception of some types of JUNCTURE as zero phonemes, or to suggest a structural parallelism between SYLLABLE types (a CV sequence being seen as a CVC sequence, with the final C being zero).

Zero is especially encountered in the formulation of Generative Rules, where the term refers to an item deleted from a given context (a 'deletion rule'). Such rules are of the type 'rewrite A as zero, in the context X–Y' (A $\rightarrow \emptyset$ / X–Y), and they apply in Grammar, semantics and Phonology. In X-bar syntax, a zero-level or zero-bar category is a lexical category.

It is plain that the introduction of zero (sometimes referred to as the **null** element, deriving from the use of this term in mathematics) is motivated by the need to maintain a proportionality, or regular pattern, in one's analysis, or in the interests of devising an economic statement. It is also a notion which has to be introduced with careful justification; too many zeros in an analysis weaken its plausibility.

zero resonance (n.) see ANTIFORMANT

ZOÖSEMIOTICS (n.) A branch of SEMIOTICS that studies the features of human COMMUNICATION which, as the end products of an evolutionary series, are shared with animal systems of communication; opposed to 'anthroposemiotic' features, which are exclusively human. Under the heading of 'zoösemiotic features/ systems' fall certain features of tone of voice (see PARALANGUAGE), facial expression, gesture, etc. (see KINESICS, PROXEMICS), as well as several mechanisms of animal communication which seem not to overlap with human signalling systems (e.g. chemical signals (pheromones), echolocation).